

# SE MRC College Algebra Content Review

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## Other Types of Equations Section 1.6

### Learning Objectives:

1. Solve polynomial equations by factoring.
2. Solve radical equations.
3. Solve equations with rational exponents.
4. Solve equations that are quadratic in form.
5. Solve equations involving absolute value.
6. Solve problems modeled by equations.

3. Solve the given radical equation. Check all proposed solutions.

$$\sqrt{2x + 17} = x + 7$$

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1. Find the real solutions of the equations.

$$\sqrt{5 - 4x} = x$$

4. Solve the given radical equation. Check all proposed solutions.

$$\sqrt{2x + 5} - 1 = x$$

2. Solve the radical equations:

$$\sqrt{5x + 4} = x - 4$$

5. Solve and check the given equation with rational exponents.

$$(x)^{3/2} = 64$$

8. Solve and check the given equation with rational exponents.

$$6x^{2/3} - 5x^{1/3} - 1 = 0$$

6. Solve and check the given equation with rational exponents.

$$(x - 6)^{5/2} = 243$$

9. Solve and check the given equation with rational exponents.

$$2x^{1/2} + x^{1/4} = 1$$

7. Solve and check the given equation with rational exponents.

$$x^4 - 8x^2 + 7 = 0$$

ANSWER KEY:

1.1	4.2	7. $\sqrt{7}, -\sqrt{7}, 1, -1$
2.12	5.16	8. $-\frac{1}{216}, 1$
3.-4	6.15	9. $\frac{1}{16}$